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COLLECTION of PAPERS

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101

The Navigation, Winds, and Weather,

The French Islands

MAURITIUS and BOURBON.

Bublished at the Charge of the Cast India Company,

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Dabrymple.

1794

LONDON:

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Printed by GEORGE BIGG, 1794.

Table of the Geographical Positions of the most remarkable Points of L'Isle de France, or Mauritius, with the beight of the Mountains above the level of the Sea, deduced from geometrical operations in 1753, by Abbé de la Caille.

South	East	height *
Latitude.	Longitude	above the
	fr. Greenwich.	Sea in toifes.
Summit of the Island, called Parafol 19º 48. 55"	579 46. 10"	83
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De Paffage Ifland	4 57. 43. 51	
Piton of Little-Black-River Mountain . 20, 24. 1		
	0 57. 19. 27	
	1 57. 17. 11	
	2 57· 27· 30 0 57· 16. 8	

[·] Morne.

"Extract of a Letter from Captain John Blake, of the Ship Hallifax, dated the 19th July 1738, at Mauritius, concerning that Port, and manner of failing into it.

THIS is a most commodious Port, where Ships may refresh, or repair, at a small expence, and with great expedition; this Place being a Magazine of all forts of Materials and Stores, that can possibly be wanted, for that purpose; good Beef is to be had at 4 Sous & French pound, Fish at 1 Sous & D? Stag at the same price, Turtle is plenty, they have them, from Diego-Rais, where they keep a House, and 8 Men for that purpose, which I the rather mention, in case any of our Ships in making this Island, and seeing a House, Smoke, &c. should think they are people cast away, and should lose time, by endeavouring to take them in, as I should have done, had I seen either; believing the Island to be uninhabited. The Ships that come here, endeavour to make it, and though our Charts lay the Rocks 5 leagues of, they are not two.

"I made the body of the Island [Mauritius] at Sunset the 24th June, bearing WNW 14 leagues, had 16? 30' West Variation, stood in for the NE part of the Island, 'till I made the two Round Islands, which I kept close aboard, going without all the Islands, keeping about two miles off them, 'till I came to Hang-Rock, which makes like a Gunner's Quoin, and That, I was not a mile's distance, from. The French Captains here inform me, it is quite steep, and that you may go so near, as to throw a biscuit ashoar. After passing the Quoin, I hauled in for the Land SWbS, and SSW, 'till I made a Reef of Rocks, lying off Long-Point, about two miles, at the most, from the shoar, but you may come within a mile of them, without danger; I had no ground at 60 fathoms 2 miles off, after you pass these, there is no danger. You then see the Town,

and Peter Butt's bead, which is a very remarkable Peak, with a Knob on the top like a Man's bead, and is the mark for the entrance of the Harbour by bringing it open with a Gap in the Land.

- "After you are past the Reef, abovementioned, keep close in with the Land, because the Wind is off Shoar. You may anchor in 15 or 20 sathoms, but the ground is not very good, 'till you come near the Harbour. I mention this, lest any one should be fearful to sail in the night, that they may not lay to; for the Current is very strong, especially near the Islands, and will set you so far to leeward, before day light, as will oblige you to stand to the Eastward, to setch in again.
- "There is no danger between the Reef and the Harbour, so as you don't come under 12 fathoms, you may sail as well in the night as in the day. Whoever comes here, as soon as they are past the Reef, and got in with the Land, should hoist their Colours, and fire two guns (if in the night make lights) and a Pilot will come off, bringing some provisions, vegetables, &c along with him, and he carries you to the Harbour's-mouth, where the Captain of the Port, comes on board, with Boats, Warps, &c to affist the Ship, and to moor her, before he leaves her.
- "You are; for the most part, obliged to warp in, the Wind being right out, and the Channel narrow, but their assistance of long Warps, &c makes it easy, generally getting in and moored in one day. We had the good fortune to fail in directly, having a favourable wind, but it is not very common.
- "I must also observe, that there is a very good light, kept on the top of a very high Hill, for your guide in the night, where they hoist a Flag in the day. The French Ships always come between Hang-Rock and Long-Island, keeping Hang-Rock, which makes like a Quoin, close aboard, to avoid a Reef, off Long-Island, which

runs off about two miles; but there is a very good Channel, and no They fall in with the Land as we did, make Round Islands, and then fall in for Hang-Rock, or Quoin, make the Reef off Long-Point, and follow the directions, as before. I had never been here before, nor any one on board, and our Charts are very deficient, not mentioning any thing about the passage between the Islands; therefore as I was a stranger, I did not care to venture on an uncertainty, but I advise it as the best and surest passage, for, by going about the Islands, you may find a difficulty in fetching in with the Land. In case you cannot pass Hang-Rock, time enough to get beyond the Reef off Long-Point before night, it is best to stand to the Eastward, making trips till morning; for if you lye to, the Current will fet you to leeward, and oblige you to run to the Eastward to fetch in again; and whoever should come here, need not be under any apprehensions of danger, there is none but what plainly appears, and may come within two miles of; I am the first English Ship that has visited this Island, since the French have been in possession of it, and I meet with great civilities."

On a MS Map of Mauritius, is the following Note figned I. B. supposed Capt. John Blake.

"The Body of the Island lyes in 20? 10' S. [20? 20']. It is about 20 leagues long and 15 broad; it is inhabited by the French, and is the general Rendezvous for refreshing, and watering, their India-Ships both outward and homeward bound. It is also designed, and is well situated, for Ships of War and Privateers to refresh, careen, and resit, [at] &c; as also to intercept, and annoy, the India-Trade of other Nations, in time of War. The Town and Harbour, a fine Port on the NW part of the Island, being a Magazine of Naval Stores, Sea Provisions, &c. so that it may [justly] be reckoned of equal consequence to the French

^[] From another copy of the same Map; Abbé de la Caille makes the Wand extend from 20° 0' S to 20° 28' S, so that the Middle will be in 20° 14' S.

French, in the East Indies, as Mahon is, to the English, in the Mediterranean; and in time may prove a Thorn, in the East India Trade, to other Nations. It is a fine Country, adorned with Trees of all fizes; The West Side, from Port Louis to the Savannah, is mountainous and rocky; abounding with Wild Goats and Hogs: From Port Louis Eastward to the Savannah, is a fine Country. About Flac, it is level and free from Stones, with an infinite number of Rivulets [and abounding with Deer.]

" The Port is fituated about the Latitude of 19. 50 [15] S, and is very remarkable by the Mountain, Peter Butt, which you must bring to bear SEbS, and steer for the Entrance of the Harbour, to the Point of the Reefs; the mark for running in, or anchoring in the Road, is to bring Peter Butt, and the little Peak, under it, in one, and the Gap, open to the Westward. You have no Soundings till well in, first 40. 30. 20. 10. to 9 fathoms, where you may ride, till you have an opportunity to warp in, which you are obliged to do, the Winds, for the most part, being off the Hills, and the Channel narrow. After you are in, you lye, fecure from Wind and Weather, at the upper part of the Harbour, in about 4 or 4½ fathoms. You moor with BB to the ENE, and SB \(\displaystyrian, \) to the WSW, so as to ride between both to the SSE winds, which blow fresh, in flurries. You also lay your stream +> to the NW astern, to prevent your Ship tending to the Sea-Breeze, as the Harbour is narrow.

SE Port on MAURITIUS, called by the French,
PORT BOURBON.

"This Port is fituated about the Latitude 20? 30' S. b It has two Entrances, and a good deep Channel, though narrow, the West Entrance is the best: in coming in, you keep the little Island, [on the Bank,] close aboard, and after you are round it,

voi

There is a great mistake here in the Latitude; The New Church at Port Louis is in 20? 10' S by Abbé de la Caille. D

Abbé de la Caille 20° 22' S. D

you haul to the Eastward, to avoid the Point of the West Reef, where you may +, in the Bason, in 25 or 30 fathoms. If you are for the Harbour, you may perceive the Channel, by the Colour of the Water; there being no danger but what plainly appears. The Harbour is defended from all Weather, by a Reef, which is a great part dry at low water, there is a little Bason at A, in which Ships, of any burthen, may careen. At the foot of the Reef is $4\frac{1}{2}$ fathoms. It is difficult to get out, by reason of the Trade-Winds setting in, except about full and change, when it is subject to variable winds, and often fine Land Breezes."

On a Plan of the Port, without name, are the following Directions, for Sailing into the NW Harbour of MAURITIUS.

" Coming from the Eastward, the first Land you'll make, will be a small Island, bearing about WbS of you, providing that you make it in about the Latitude of 20° 5' S. and soon after that, you will see the NE part of the main Island, with the same bearings, run on boldly to the Westward, till you bring Long-Island to bear NE about 3 miles, at which time the Gunner's Quoin will bear South, about 1 mile; give the latter a pretty good birth to the Eastward, then luff in with the first low Point of Land, upon the main Island, from which steer SW (if the wind blows off the Land) but if the Sea-breeze comes in, steer more Westerly, on account of the swell, it commonly brings in with it, untill fuch time you bring the Fort, upon the Starboard-hand, going into the Harbour, to bear South, or rather to the Eastward; then you are abreast of the first warping-buoy, which will be close along fide, upon your Larboard-hand going in, so stand on, and when the NW Point of Cooper's Island bears SE, then you are abreast of the second warping-buoy, from which steer SSE untill the Fort upon the Point, on starboard-hand, bears SSW, then steer

SEbS, untill the faid Fort bear WbS, and the NW Point of Cooper's Island due E, then you have just entered the Harbour's Mouth, and observing to take your Sails in judiciously, having but little ground to run on, you may stand on, and having good anchorage, in 4 fathom water, black muddy ground with much small weeds and young Coral.—The Bearings as follow, viz. the Fort upon the Point, on the Starboard-hand going in, NWbW½W, Bullocks Fort SWbW, the first Windmill, on the Starboard-hand going in, SSW, the second D? upon the small Island SbE, Fort St. Barb SEbS, Peter Buti's head SE½S, the NE angle of the Magazine Wall SE½E, the SE point of Cooper's Island N¾E, Bourdiniers NbW, the Westermost Point of Cooper's Island NNW.

"The Soundings are pretty regular in this Harbour, but in general very shallow, I thought it the most exact method to mark the depths of water in feet, instead of fathoms, as I did my line on the same account. During the time we lay in this Harbour, which was from the 15 June 1752 O. S. untill the 20th October following, we had frequent Sea breezes blowing for the space of five or fix hours, and I've observed it to keep veering, from the W to the NW, for two or three days upon a Stretch, and fometimes you'll have no Sea-breeze, for 10 or 15 days running; (in that case) you can come to an anchor in Turtle-Bay, in 30 or 35 fathoms water, when Hang-Rock, or the Gunners Quoin, will bear NEbE of you, Brows-bay about 1½ SSE, and the North End of Cooper's Island SSW about 4 miles, the Westmost Land in fight SWbW, then you are ready for the first Spurt of Wind, that offers, to blow you in, and besides observing the above mentioned directions, be fure to keep your lead constantly going on both fides, the channel being very narrow, in and about the Harbours Mouth."

On a "Plan of the North West Harbour, and Forts, on the Island of MAURITIUS, in 20? 05' South Latitude, 54. 55' Longitude East of London by Charles Kelly," are the following Directions, to sail into the Road.

"If a Fleet going from Europe to Mauritius, it would be proper to make the SE part of the Island first, and round it, so as to have the East side fairly open, then steer about WbN, till you get into the Track of the Shrewsbury East-Indiaman, keeping at 2 miles distance from the Shoar." The Shrewsbury anchored in the Rood in 8 fathom water. The Flag-staff bearing SEbS, and the Extremes of the Land, from SWbW to NE, distance from the Flag-staff about 3 miles. By several Sights in the Road, I found the Variation to be 15° 17' W. The Island lyes

Mr. Charles Kelly's Journal of the Shrewsbury, Indiaman, 1769.

" 23d June. At 6 AM Variation, 2 azimuths, 14. 57 W [then in fight of Mauritius.]

At Noon, Lat. O. 19. 56' S.

The Extremes of Mauritius distant 3 leagues.

 $S_{\frac{1}{2}}W$ to $WbN_{\frac{1}{2}}N$ [WbS $\frac{1}{2}S$?]

Four Islands, names unknown

[Hang-Rock] WbS
[Long Island] NbW
[Round Islands] { NEbE
ENE

H. Weather. Winds. Courfe. K. F.
1 . Cloudy . SSE . WSW . 4.2

At 1 PM, Passed between the two Westernmost Islands about mid-channel, no soundings 30 fathom."

in the SE Trade, and has frequent Sea-Breezes, and feldom miffes, about the full and change of the Moon, to blow fresh from S to SW, for 3 or 4 days together. If a Fleet, at fuch a time, was bound in, I think, they may run down the West side, at a proper distance, and into the Road, with Safety, without being annoy'd by any Battery, till they open the Road: Whereas, in coming in from the Eastward, they must pass a chain of Batteries .- I was informed by the Pilot, that they had lately fixed a chain, or boom, that reaches across from Cooper's Island to the Point of Fort Royal. In rounding the East Side of the Road, I faw. feveral Staffs with white Flags on them, in the water, arranged, as I judged, near the edge of the Sand, suspecting a deception, I ventured in the night to examine into it, and pulling up one of them, I found the Staff was fixt in the Buoy, and the rope of such a length to float the Buoy within about 2 feet of the Surface. I dropt the hand-lead and found 8 fathoms water."

Meteorological

Meteorological Journal

MAURITIUS, or ISLE DE FRANCE,

1768 and 1769.

From "Voyage à l'Isle de France, &c." 1773, 8?

Surein the Zenich,

1768, July. "During this Month, the Winds prevailed in the SE quarter, from whence they blow almost the whole year. The Sea-Breeze is very fresh in the day; in the night calm. Although this is the dry season, rain often falls; it comes in pretty violent squalls, of short duration. The air very cool. Cloth Cloaths can scarcely be dispensed with.

August. "It rained almost every day. The top of the Mountains covered with vapours like smoak, which descend to the Plain, accompanied with gusts of wind. These Rains often form Rainbows on the sides of the Hills, which nevertheless are not less black."

September. "Same weather and fame wind. This is the Harvest. If Heat and moisture are the only causes of vegetation why does nothing shoot in this season? It is not less warm than the Month of May in France.

October. "Same temperature, the air a little warmer; it is always cool in the interiour of the Island. At the end of this Month they sow their Wheat, in four months they reap it; then they sow Maiz, which is ripe in September. These are two Crops from the same Field; but this is not too much for the Pests with which this Land is desolated.

November.

La brise est forte. très frais qui n'en sont pas moins noire.

November. "The Heats begin to make themselves felt, the Winds variable, and sometimes come round to the NW; Squalls of rain fall. No Vessels from France, no Letter: It is melancholy to wait from Europe, some portion of its blessings."

December. The Heats are oppressive, the Sun in the Zenith, but the Air is tempered by the abundant rain. It seems to me that I have experienced greater heat in some days of the Summer at Petersburgh. At the commencement of the Month, I heard Thunder for the first time since my arrival.

"23d. In the morning, the Wind being at SE, The Weather threatened a gale of wind. The Clouds gathered together at the tops of the Mountains, they were olive and copper-coloured; above was observable a long streak that remained immoveable; The lower clouds flew very rapidly. The Sea broke with great noise on the Reefs. Many Sea-Birds came, from the Offing, to take refuge at land.

- The Domestic animals appeared uneasy. The Air was heavy and hot, although the Wind was not fallen.
- "As all these signs prognosticated a Hurricane, every one hastened to prop his House with Supporters, and stop up all the Openings.
- "Towards 10 o'Clock at night The Hurricane, came on. It was terrible puffs, followed with moments of frightful calm, when the Wind feemed to be regaining its strength. It continued thus encreasing during the night. My Cabin giving way I passed

[.] Se tombe des pluies orageuses.

d'attendre de l'Europe quelque portion de son bonheur.

[·] le temps se disposa à un coup de vent.

I passed to another part of the Dwelling. My Hostess was drowned in tears, with the sear of seeing her House destroyed: No body went to bed. Towards Morning, The Wind having still redoubled, I perceived that a whole front of the Palisade, of the Compound, was falling; and that a part of our Roof was rising at one of the Angles: I repaired the damage with some Planks, and ropes. In crossing the Court to give some Orders, I thought several times that I should have been blown down. I saw, at a distance, Walls falling, and the Shingles of Roofs slying about, like a pack of cards.

Towards 8 o'Clock in the morning, Rain fell, but the Wind did not abate. It was driven horizontally, and with so much violence, that it was like so many Spouts, where ever there was the smallest openings. It spoilt part of my papers.

"At 11 o'Clock, the Rain fell from the Heavens in Torrents. The Wind lulled a little, all the Ravines of the Mountains formed on every fide prodigious Cascades. Pieces of the Rock broke loose with noise like Cannon, in rolling down they made great lanes in the Woods. The Rivulets overflowed into the Plain, which was like a Sea; neither Dikes or Bridges were to be seen.

At 1 o'clock after noon, The Wind flew round to the NW. It threw the foam of the Sea, in great clouds upon the Land. It threw the Ships, that were in the Harbour, upon the shoar, they fired guns in vain; for no affistance could be given them. By these new shocks, the Buildings were shaken the otherway, and almost with as much violence. Towards Noon the Wind changed to East, then to South. It thus made the circuit of the horizon in the four and twenty hours, as it usually does; after which all was calm.

" Many

a elles formoient en roulant de larges trouées dans les bois.

"Many Trees were blown down, Bridges carried away; Not a leaf remained in the Gardens: Even the Grass, this stubborn dogs-grass, appeared in some places shorn to the surface of the ground.

"During the tempest, a good-Citizen, named Le Roux, senthis Black-Workmen every where to offer their affistance gratis-This Man was a Joiner. Good actions should never be passed over in oblivion: especially here.

"An Eclipse of the Moon at 5th 4th in the evening was predicted, but the bad weather prevented the Observation.

"The Hurricane comes every year regularly in December: fometimes in March, as the Winds go all round the horizon there is is no vault [or cave] where the Rain does not enter. It destroys a great number of Rats, Grashoppers, and Ants, and it is sometime before they are seen again. It has the place of Winter, but Its ravages are more terrible. That of 1760 will be long remembered: an Outside-Shutter was carried in the air, and darted like an arrow against a Roof. The lower masts of a 64 gun Ship, which were without yards, were twisted and broken. There is no Europe-Tree that is able to resist such violent whirlwinds. We have seen how Nature has defended the Forests of this Country.*

1769, January. "Weather rainy, hot and heavy, very violent squalls, but little Thunder. As the Gusts of Wind are violent at this Season, the Navigation ceases from December to April.

" All

grands orages.

^{*} This refers to a remark made before, "that the Trees here, were not high, the heads not much branched, very heavy, and so connected together with creepers, as to enable them to result the Hurricanes, which would presently blow down the Oak and the Firs."

"All the Meadows are green again, the Country is more gay but the Sky more difmal.

February. "Stormy Weather, and violent gusts of Wind. The Boat l'Heureux, dispatched to Madagascar, perished; as well as the Ship Favori from the Cape.

"25th of this Month the Clouds, gathered together again by the NW Winds, formed a long immovable band, from the Flag-Staff Mountain to Cooper's Island, a prodigious quantity of thunder-claps issued from it, the Storm lasted from 6 o'Clock in the Morning to Noon. The Lightning fell a great many times. A Grenadier was killed by one flash, a Negro-Woman by another, as well as an ox on Cooper's Island. A Musquet was melted in the house of an Officer. The People here say there is no example of Lightning having ever fallen in the Town; for my part I never heard such violent Thunder. It seemed like a Bombardment. I believe if cannon had been fired, the explosion would have dissipated these immoveable clouds.

March. "The Rains a little less frequent. The winds always at SE, the Heat supportable.

April. "The Weather fine. The Grass begins to dry, and, when set on fire, it leaves, for seven months, a Country painted black.

May. "Towards the end of this Month, the Winds changed to the West and NW, as is customary. This is the dry season." I was at the Plains of William, where I found the Air of a very agreeable coolness.

June.

[·] nous voilà dans le faison seche.

"The Winds are fixed at South, where they are almost always. The little Squalls with Rain, recommence.

"There is no malady particular to this Country; but people there die of all the diseases of Europe. I have seen death by apoplexy, fmall-pox, complaints in the Stomach, and obstructions in the Liver, which arise more from chagrin, than from the quality of the water, as they allege. I have feen a Stone larger than an Egg extracted from a native Blackman. I have feen Paralytiques, and gouty persons in great torments, Persons subject to Epilepsy; seized with their fits. Infants and the Blacks are very subject to Worms: The Venereal disease produces vermin b in the last: They are from painful cracks in the soles of the feet. The Air there, is good like Europe; but it has no medicinal quality, I do not even advise gouty people to come there; for I have feen fuch remain, more than fix months at a time, confined to their bed.

"The Constitution is sensibly affected by the change of Season. Bilious Fevers are prevalent, and the heat also occasions ruptures, but, with temperance and bathing, health is preserved. I observed however that the Inhabitants of cold Countries enjoy a more robust health and more active spirit: it is very remarkable that History makes no mention of any celebrated Person. born between the Tropicks, but Mahomet."

and the World of the second of the following the West States

Short

des epileptiques faisis de leurs accès.

Short Account of the Hurricanes, or Gales of Wind, at BOURBON, from 1733 to 1754.

From Mem. de l'Academie des Sciences, 1754.

Abbé de la Caille, tells us, that having been at Bourbon during the rainy Season, and only remained there forty days, he could not give, from his own knowledge, a circumstantial Description of that Island: he adds

that that his bloom sport that that the

"Although larger than MAURITIUS, it is however only a great Mountain, in a manner cloven through the whole height, in three different places. Its Summit is covered with Wood, and uninhabited, and its declivity, which extends down to the Sea, is cleared, and cultivated in two thirds of its circuit: The remainder is covered with Lava of a Volcano, which burns gently and without noise: It only appears a little violent in the rainy Season.

"The Island Bourbon has no Port; it only has two Roads; the one very near the shoar, and little safe, it is in the District of St. Denys: the other, in a great sandy bay, be where the Sear is pretty smooth, but the landing difficult; this Place is called the District of St. Paul.

"For want of a safe Port, the Vessels do not chuse to remain at anchor, at the Island Bourbon; especially during the rainy season, when this Island is subject to terrible Hurricanes, which expose them to great danger. It is nevertheless at this season they are obliged to go there, on their return to France, as well for provisions, as to load the Cosse; which is the principal commodity of this Island.

" Thefe

^{*} il ne paroit meme un peu ardent que dans la faison des pluies.

grand anse de sable.

"These Hurricanes, which our Mariners call gales of Wind;" are also felt at Mauritius, but commonly with less fury, and damage, whether it is that the Volcano in Bourbon encreases their violence, or that this Island being higher, and formed of one fingle Mountain, which has only three breaks, and not composed of several Chains like Mauritius, the Torrents formed by the Rains, which bring the Hurricanes, make the greatest devastation, because they are not separated by a great number of Valleys, and because they are more rapid, in their fall, by coming from a greater height.

della edicionación accidente de la company d

"The Hurricanes are not customary to happen but from December to the end of April: They are more particularly dreaded at full and change of the Moon. At this Season the Vessels don't chuse to + at Bourbon, except four or five days after the New, or Full Moon: they don't remain more than five or fix days, or even less, in fear of being caught in the neighbourhood, at these two dreadful Phajes. This precaution, though prudent in regard to the shortest stay possible, is not always infallible for escaping the gales of wind, or Hurricanes, as will be feen by the List of Those that have happened for twenty years. It was given to me by M. Brenier, Counsellor-Commandant at the Island Bourbon, who has kept an exact Register since his residence in this Island. I have added to the dates of these Hurricanes, the day and bour of the nearest Phases of the Moon, as well as that when It had passed the apogee or perigee.

1733, The night between the 10th. and 11th. December 1733, there was a great gale of wind d at North: the veffels that were in the Road of St. Paul put to Sea, and returned

1733.

a few days after, without damage; one only remained fafe at 4-). A Ship and a Boat which were at St. Denys, were driven ashoar; nine persons perished. New-Moon the 6th, 3h 30m. P. M. 1st Quarter 14th, 11h 30m. A. M. 3 apogee 4th.

22d December, there was a gale of wind, at South: Full-Moon 21st, at 3h. 15m. A. M. perigee 20th.

1734. 9th January, there was a gale of wind, at East, which continued, with a few hours intermission, till the 15th, the wind changed to West; a Vessel that was at St. Denys put to Sea. New-Moon 5th at 11th A. M. 1st Quarter 12th at 10 P. M. perigee 14th.

25th. The night between the 25th and 26th January of the same year, violent gale of wind, which continued, with the rain, to the

29th. Last Quarter 27th at 1 1. 15 . A. M. p apogee 29th.

13th March. Gale of wind, at sea, pretty hard at Mauritius. A Vessel that was at St. Paul put to sea. 1st Quarter 12th at 1h. 45m. P. M. D perigee 11th.

P. M. began at West; it changed to East, and blew all the 27th. New-Moon 24th at 6th. A. M. Dapogee 22d.

22d January,

coup de vent au large.

2736. 22d January, there was a gale of wind, which lasted till the 25th; the rain did not cease till the 30th. 1st Quarter 21st 9h 30m A. M. D apogee 15th, perigee 29th.

5th February, incessant rain, to the 10th inclusive.

7th gale of wind. Last Quarter 4th at 0h. 15m. A. M.

2 apogee 12th.

day at 5 A. M.; it blew from SW. New-Moon 31st at oh. 30 A. M. perigee 20th.

4th April, gale of wind at St. Paul's, from 3 A. M. to next day at Noon; it was felt to the Eastward of the Island from the 1st of the Month. New-Moon 31st March Noon. 1st. Quurter 8th April at 11h 30m A. M. Dapogee 31st March.

- 1738. 13th February, gale of Wind, which began at SE, at 11th A. M. it veered to South and SW round to North, the 14th A. M. Last-Quarter 11th at 8th P. M. (perigee 10th.
- 1739. 12th January, a middling gale of Wind, from 8th P. M. to. Midnight; it was at West. New-Moon, 9th January, 26 9th P. M. (perigee 7th.

22d March, gale of Wind, at North: continual rain, to the 26th. Full-Moon 25th at 8th 45 th A. M. & perigee 30th.

at 3h. A. M. and continued to the next day at Noon. Last-Quarter 22d at 4h. 45m. Capogee 15th.

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28th February, gale of wind, at St. Denys, which was only perceived at St. Paul, by the great swell. New-Moon 27th at 10th A. M. (perigee 25th.

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13th March, gale of wind, at South, which began at 8h. A. M. and continued all the day and all the night. Full-Moon 13th at 4h. P. M. Capogee 9th.

- 1742. 10th January, gale of wind, at North, from 7th. P. M. to 11th A. M. New-Moon 7th at 1th 45th A. M. C perigee 12th,
- day at 4 P. M. It did more mischief at Mauritius, than at Bourbon. Full-Moon 10th at 2th P. M. (perigee 3d, apogee 17th.
 - wind, at North; the 10th at Noon the wind fortunately changed to South, by favour of which a Veffel going on the Coast was saved, and put to Sea. Last-Quart 6th at 10th P. M. a pogee 13th.
- next day; the rain continued to the 19th. First-Quarter oth at 10th. P. M. D perigee and full 16th.

sea than things I to this a long and the country

morning at East, changed to North and continued all night; after a little Calm, it veered to West, to East, and to South: it did not end 'till the 22d in the evening.

New-Moon 21st at 8th. P. M. Dapogee 27th.

16th

[·] qui alloit a la côte s'est relevé.

gale of wind, which lasted but a little time, though it very much damaged the Maiz. New-Moon 20th at 0 45 P. M. D at mean distance.

6th April, terrible gale of wind, at North, the violence of which lasted from 6 A. M. to 6 P. M. A Portuguese Ship, without rudder and reduced to one mast, was wrecked on the beach; be twelve persons perished. The wind having changed to South in the evening, the Sea became all at once still, the Ship remained dry upon the beach, where it had bed-ed itself. Those who remained aboard were saved. Full-Moon 6th at 4h. 45m. A. M. D in perigee.

- NE and continued all night veering to South. New-Moon 11th at 5th 15th A. M. D perigee 6th.
- 1748. 21st January, gale of wind, from 4 P. M. all night. Last-Quarter 23d at 3h. 30m. P. M. D perigee 27th.

28th March, violent gale of wind, at South; it commenced at 1^h. P. M. and ceased after Sunset, after a calm of one hour about 5 o'Clock: much rain this day and the following, during which were felt some hard puffs of wind. s New-Moon 29th at 6^h. 30^m. A. M. D perigee 22d.

1750. 31st January, gale of wind, during the night which preceded the 1st February; it was at North, and wiolent at St. Denys; at St. Paul's it was not so hard and at SW. Last-Quarter 30th, at 8th 45th P. M. Dapogee 26th.

4th March, middling gale of wind. New-Moon 8th at 11th A. M. D perigee 8th P. M.
18th March.

1750. 18th March, gale of wind, more violent than the preceding; it lasted till

20th, at 9h. A. M. Full-Moon 23d March at 4h. 30m. A. M. D apogee.

- 1751. 26th March, in the night between 26th and 27th, there was the most terrible Hurricane that any person living on the Island ever saw; It was at East, and made dreadful ravages from the East to St. Paul. New-Moon 27th at Noon. perigee 29th.
- 1752. 4th February, gale of wind, at ENE which was not general over the Island. Last-Quarter 7th at 9th 30th A. M. D apogee 9th.

21st December, gale of wind, at North, and great rain; two Boats were wrecked. Full-Moon 21st at 4th A. M. perigee 22d.

one of The Company's Ships. First-Quarter 12th at 7th P. M. perigee 14th.

26th March, a kind of gale of wind, which obliged a Ship to put to sea. Last-Quarter 26th at 10th P. M. papagee 28th.

NE, rested at NNW and veered to SW. Full-Moon 9th at 6th A. M. D perigee 11th.

April, gale of wind and Hurricane, which made 21st great devastation on the Island; I have only the report, without any detail. New-Moon 22d at 6h. 15m. P. M. D apogee 18th."

An account of a Hurricane at BOURBON in 1770.

From "Voyage à l'Isle de France, &c." 1773, 8° Vol. 2, P. 8.

"From the 25th to 30th November 1770, the Sea-wind was fo fresh that sew Boats, from the Vessels in the Road, came ashoar. Our Captain took a favourable moment to return aboard, where his business called him, but the bad weather prevented his coming back.

"This Sea-Wind, which always comes from SE, springs up at 6 A. M. and dies away at 10 P. M. At this season it continues day and night with equal violence.

"1st December the Wind fell, but a monstrous Swell came from Sea, and broke upon the shoar with such violence, that the Centinel, on the Bridge, was obliged to quit his post.

"The Top of the Mountains was covered with thick clouds without motion. The wind still blew gently from SE, but the Swell came from the West. Three great-Waves incessantly followed each other, they were visible along the Coast, like three long Hills, they threw up from their tops spits b which formed a kind of hair. They drove upon the shoar, forming an Arch which rolling over, rose in Foam above sifty feet high.

Respiration was difficult, the air heavy, the sky obscure, slocks of (corbigeaux) and Tropick-Birds came from Sea and took refuge on the Land. The Land-Birds and animals appeared uneasy. Even Man selt a secret dread at the prospect of a frightful storm, in the midst of a Calm.

" The

Jets d'eau.

[·] Elles s'elançoient sur le rivage, en formant une voute, qui se roullant sur elle même s'elevoit en écume, &c.

"The 2d in the morning, The wind fell at once, and the swell encreased; The waves were more numerous and came from a greater distance. The Shoar beaten by the waves was covered with a white froth like Snow, which got in heaps like bundles of Cotton. The Vessels in the road laboured very much at +>.

"There was no doubt this was a Hurricane, they drew wellin upon the Land, the Pirogues that were on the pebble-beach; and every one hastened to secure his house with ropes and props.

"There were at \rightarrow , l'Indien, le Penthieure, l'Amitie, l'Alliance, le Grand-Bourbon, le Gerion, a gaulette and a small boat. The Coast was lined with people drawn there by the appearance of the Sea, and the danger of the Vessels.

"At Noon the Sky became prodigiously charged, and the Wind began to frethen from SE, there was an apprehension then, that it would change to the Westward, and that it would drive the Vessels on the Coast. The signal was given, from the Battery, for their putting to sea, by hossting the Flag and siring two guns with shot. Immediately they cut their cables and made sail. Le Penthieure lest her boat, which could not get on board again. PIndien, at farther out, went away under her four principal sails. The others got away successively. Some Blacks, who were in a Boat, took refuge on board PAmitie. The little Boat and the Gaulette were already in the Waves, where they disappeared from time to time; they seemed to be afraid of putting to sea; at last they got under sail, with the anxious

on craignoit alors qu'il ne tournat à l'orient, & qu'il ne jettat les vaisseaux fur la cote.

anxious prayers of all who saw them. In two hours all this fleet were out of fight to the NW in the midst of a black horizon.

- "At 3 P. M. The Hurricane came on with a frightful noise; and all the Winds blew successively. The Sea beaten, agitated in all directions, threw on shoar clouds of Foam, Sand, Shells, and Stones. Some Boats repairing, at fifty paces from the shoar, were buried under the pebbles; The Wind carried away a part of the roof of the Church, and the Colonade of the Government-House.
- "The Hurricane continued all night, and was not over 'till the 3d in the morning.
- "The 6th, the two first Vessels that returned, were the little Boat and the Gaulette; they brought a letter from the Penthieure, which had lost its main topgallant mast. They themselves had met with no accident.
- "The 8th Le Gerion appeared, it had gone to Mauritius, by it we learnt that the Storm had there wrecked the King's Flute, La Garonne, at +>.
- "In short till the 19th successively accounts were received of all the Vessels except l'Amitie and l'Mndien. The strength and size of the last seemed to secure her against any accident, and it was not doubted she had pursued her voyage to the Cape Good-Hope, and from thence to France; besides I knew this to be the Captain's intention."

un pan de la couverture.

In "Voyage à Madagascar, &c." by Abbé Rochon. "Discours Preliminaire," P. XXVIII, he has given some account of an Hurricane at Mauritius, he says

" It is necessary to have been in an Hurricane to form an idea of this dreadful meteor. The Hurricane is almost always accompanied with rain, thunder and earthquake; the atmosphere is on fire, the wind blows with equal violence in every direction; an Hurricane is a kind of water-spout, that threatens to deluge that part of The Earth on which it falls. It is at least under this appearance, that Mariners fee it at a distance, and the Ships often lye becalmed, at a little diffance from the Places, where these terrible storms burst with most violence. If the velocity of the Wind exceeds 150 feet in a second, a nothing can refift its force; the largest trees are torn up by the roots, the most fubftantial-built houses are blown down, nor can the heaviest anchors, the strongest cables, nor the best-holding-ground, enable veffels to ride out, the wind drives them ashoar, and wrecks them, unless they make a Bed for themselves in the

" I have feen the main top mast of the Mars, a 64 gun-ship, when struck, carried away short off, close to the cap, b in the Hurricane of March 1771, and this Hurricane was not, by any means, near so violent as that in February of the same year. Intelligent Mariners can judge of the force that could carry away a maintopmast, when struck, close to the cap; and, after that fact being established, they will not think I exaggerate the velocity of the wind, in reckoning the most violent puffs at 150 The extraordinary changes of the Barometer in the Tropical Regions are the only figns, hitherto had, to foresee the Harricane a few hours before it commences.

" At the time of the Hurricane in February 1771, the sudden finking of the Mercury raised an apprehension in me, as well as in M. Poivre, it was at 4 o'clock in the evening, M. Poivre fent for the Captain of the Port; this Officer, who was eye-witness to the Hurricane in 1761, was not alarmed, like us, at the change of the Barometer, he faid there were more certain tokens: 'twentyfour hours, added he, before the Hurricane, you'll fee the Blacks come down from the Mountain, and announce the Hurricane. Besides the setting of the Sun, will determine me what ' measures to take, to prevent, as far is in my power, the accidents unavoidable, in these dreadful storms.' M. Poivre's perfuasion, and my observations, were not effectual to convince him; He defired us to wait till the Sunfet. The Sky was clear and ferene, but the Mercury continued finking in the Tube of the Barometer; the Sun set clear. The Captain of the Port, who had long ferved in The India Company's Veffels, left us very well fatisfied, and quite secure, in his judgment, against the difaster that threatened: He seemed to pity us for putting so much faith in a Barometer. It seldom happens that the obstinacy of a mere practical Seaman, can be got the better of, when he has adopted the abfurd notion that all Theory is useless. This race of men is unfortunately very common; and no doubt, he who would undertake to point out all the ills that ignorant and prefumptuous Chiefs have done, and do occasion, would not make a collection useless to mankind.

"The Hurricane began at 7 o'Clock in the evening, that is to fay, an hour after Sunfer. Before 9 o'Clock all the Veffels were driven ashoar, except the Flute Ambulante, and a small Corvette, named Verd-Galand; In a whirlwind this Flute was carried to sea, and the Corvette, attached to her by a Hawser, was foundered.

"The Ambulante without fails, without rudder, without provisions for the crew, and for a detachment of the Irish Regime of Clare, on board this Ship, was for more than 12 hours at the mercy of the winds; the changing of the wind carried them quite round the Island, and at last, almost miraculously, drove her ashoar, at the only place where, in so violent a storm, the Crew could save themselves. What renders these disasters the more afflicting is the impossibility of giving mutual affistance. A man must remain immovable, in the midst of ruins which surround him, waiting his sate, without a possibility of preventing and escaping it: The violence of the wind and the strength of the torrents forbid leaving the shelter chosen, or the place where you happen to be.

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"The Hurricane lasted 18 hours, without interruption, with equal violence, the heavy rain, the thunder and lightning did not abate in any degree the force of the wind: but at 3 o'Clock, the Mercury that had sunk 25 lines, remained a few minutes stationary, soon after it rose again; from that time the whirlwinds ceased; the wind became more fixed; at last, at 6 o'Clock in the evening it became practicable to give aid to the unfortunate people who were shipwrecked. In these terrible situations, men overwhelmed with the overpowering weight of necessity seem to have lost all sensibility: They wait in a kind of stupor the stroke that is to destroy them. They bear in silence without murmuring the evils that afflict them.

"During this Hurricane the Communication between the different parts of the Land was stopped by the fall of Trees, and by the floods; it was three weeks before news arrived of the Ambulante; which was shipwrecked at a Place only fix leagues from Port Louis. All the Crops were destroyed."

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M. Le Gentil (" Voyage dans les Mers de l'Inde," Vol. 2,.
P. 632) fays

- "There are four Seasons at Isle de France (or Mauritius.)
- "The first comes in May with the SE winds; then, all over the Island, are frequent squalls with rain; these rains are of great use to the corn, but sometimes also they injure them.
- The Second Season commences when the first ends, in September or October, which is the termination of the SE, and beginning of the NW winds. This is a dry season; then the Sun approaching the Zenith of the Island, begins to heat the Atmosphere, and to bring on the Squalls of rain and Hurricanes, which commence, commonly, in December.
 - " The duration of this 3d Season extends to about March.
- "After which comes the 4th Seafon, this last does not last above 6 weeks and is a dry Seafon.
- "This division of the year has more relation to the culture of the Land than to any thing elfe; for to speak truth, there are but two Seasons at Mauritius, that of the winds from SE to South, and that of the winds from NE to North and NW. The two intermediate Seasons, of April and November, occasioned by the revolution in the air, in the kind of Monsoon from SE to NE. The SE winds are strong and violent, but they are not dangerous to Ships, for when they have reached their point of velocity they do not exceed that. The NE winds on the contrary are faint, intermixed with Calms; this is what they call the rainy Seafon, of forms and of Hurricanes, or in short the winter, although it is then the warmest time of the year; but this appellation of Winter is given, as well because the Ships do not chuse to expose themselves at Sea in this season, as because they cannot go to India but by pursuing a very long and troublesome course.

" The

"The SE wind is very healthy, but nothing thrives in it, in the Places especially which are too much cleared; this is the reason why fruit Trees are produced at Pamplemouses with so much difficulty, a District entirely cleared, and where wood is very scarce. The Orange-Trees and Citrons are those which suffer most from SE winds, and which have most occasion for shelter; and it has been remarked that Those growing in the woods, grow fine and lofty, whilst those in the Plain don't thrive at all. This Wind is so destructive to the Trees, that such as it strikes directly, bear no fruit on the side they are struck, none are to be found but on the opposite side.

"Other Trees are to be seen with only half a head, and that very thin, the rest having been destroyed by the Wind; Other Trees a little more sheltered, shew at a distance a fine round head, and it would be supposed, at a distance, that the Trunk occupied the Center; it is quite assonishing, on approaching it, to see the Trunk, or Body of the Tree, at the extremity of the Head, or bushy part, exposed to the wind. The Tamarind Trees are not so delicate, they brave the malignity of the wind, so that they would be a good Shelter for a fruit Garden, but at Mauritius, they advance with the utmost slowness, and have hitherto neglected the cultivation of this valuable Tree.

"At the Cape of Good-Hope, the laborious and industrious Dutch have learnt to shelter their fruit Trees from this same wind, by intersecting their Gardens with cross Hedge-Rows of Oak.

"At Mauritius there is no ground to hope for any shelter, but at the end of a long series of years, for the Trees grow very slowly on this Island. In place of Tamarinds, the Natives have planted Bamboos, which grow very fast, and produce a pretty good effect, but which themselves injure the Gardens; This Reed extends its of its roots are so near the surface, that nothing grows within 12, 15, or even 20, seet distance round them: Often these roots run even farther: it is true that this is remedied by digging a trench 2 to 3 feet deep, and about the same breadth, but this injures the Bamboo, which is not so fine, and does not break the wind so well, besides a dry Land is not at all sit for them—in this case they do not thrive, and are of no use against the wind.

The Nights are almost always very fine at Mauritius, particularly in the season of the NE winds. In this Season, the Sun generally rises very clear; towards 10 o'Clock little Clouds gather and accumulate without appearing to denote any thing: the Clouds occupy but a small extent, and have no motion, some drops of water fall, and then the rain is certain; for, in an instant, the Sky is insensibly quite overcast, without any appearance whence the Clouds come, The Rain at the same time encreases, and in less then 5 or 6 minutes becomes so prosuse, that often one cannot see at forty toises distant. These Rains continue about two hours, and only happen when the wind comes from the sea; and when it ceases, the Vapours then ascend from the Sea, and the Mountains stop them.

"In the Season of the SE winds on the contrary one often sees, particularly in the evening, a small rain fall, although to appearance there is the finest Sky imaginable, and the Stars appeared brilliant. It is also at this season that often, in the bottom of the Port, Rainbows made by the Moon, are seen, a Phenomenon rare at Paris."

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